DEPARTMENT of ENVIRONMENTAL SERVICES Water Supply & Pollution Control Division - Biology Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: POOL POND	Lake Area (ha): 48.16
Town: RINDGE	Maximum depth (m): 4.1
County: Cheshire	Mean depth (m): 2.4
River Basin: Merrimack	Volume (m ³): 1175500
Latitude: 42°46'24" N	Relative depth: 0.5
Longitude: 72°02'14" W	Shore configuration: 1.38
Elevation (ft): 1009	Areal water load (m/yr): 13.41
Shore length (m): 3400	Flushing rate (yr^{-1}) : 5.50
Watershed area (ha): 1113.7	P retention coeff.: 0.52
% watershed ponded: 5.8	Lake type: natural w/dam

BIOLOGICAL:	2 February 1993	13 July 1992
DOM. PHYTOPLANKTON (% TOTAL)	1 SYNURA 75%	DINOBRYON 35%
	2	CERATIUM 20%
	3	
PHYTOPLANKTON ABUNDANCE (cells/ml	4)	875
CHLOROPHYLL-A (µg/L)		3.08
DOM. ZOOPLANKTON (% TOTAL)	1 NAUPLIUS LARVA 43%	NAUPLIUS LARVA 45%
.1	2 GASTROPUS 32%	KERATELLA 21%
	3 KERATELLA 18%	
ROTIFERS/LITER	22	98
MICROCRUSTACEA/LITER	22	150
ZOOPLANKTON ABUNDANCE (#/L)	44	248
VASCULAR PLANT ABUNDANCE		Common/Abun
SECCHI DISK TRANSPARENCY (m)		3.0
BOTTOM DISSOLVED OXYGEN (mg/L)	9.0	7.7
BACTERIA (E. coli, #/100 ml)	1	< 10
	2	< 10
	3	

SUMMER THERMAL STRATIFICATION:

not stratified

Depth of thermocline (m): None Hypolimnion volume (m³): None Anoxic volume (m³): None

CHEMICAL:	Lake: POOL POND Town: RINDGE				
·	2 February 1993		13 July 1992		
DEPTH (m)	1.0	3.0	1.5	3.0	
pH (units)	6.1	5.8	6.6	6.7	
A.N.C. (Alkalinity)	3.2	4.0	4.2	4.2	
NITRATE NITROGEN	0.12	0.07	< 0.02	< 0.0	
TOTAL KJELDAHL NITROGEN	0.29	0.42	0.21	0.1	
TOTAL PHOSPHORUS	0.008	0.009	0.010	0.0	
CONDUCTIVITY (µmhos/cm)	138.4	144.0			
APPARENT COLOR (cpu)	22	22	21	21	
MAGNESIUM			0.75		
CALCIUM			2.9		
SODIUM			19.4		
POTASSIUM			1.10		
CHLORIDE	33	35	34	33	
SULFATE	7	6	6	6	
TN : TP	51	54	21	21	
CALCITE SATURATION INDEX		· · · · · · · · · · · · · · · · · · ·	3.7		

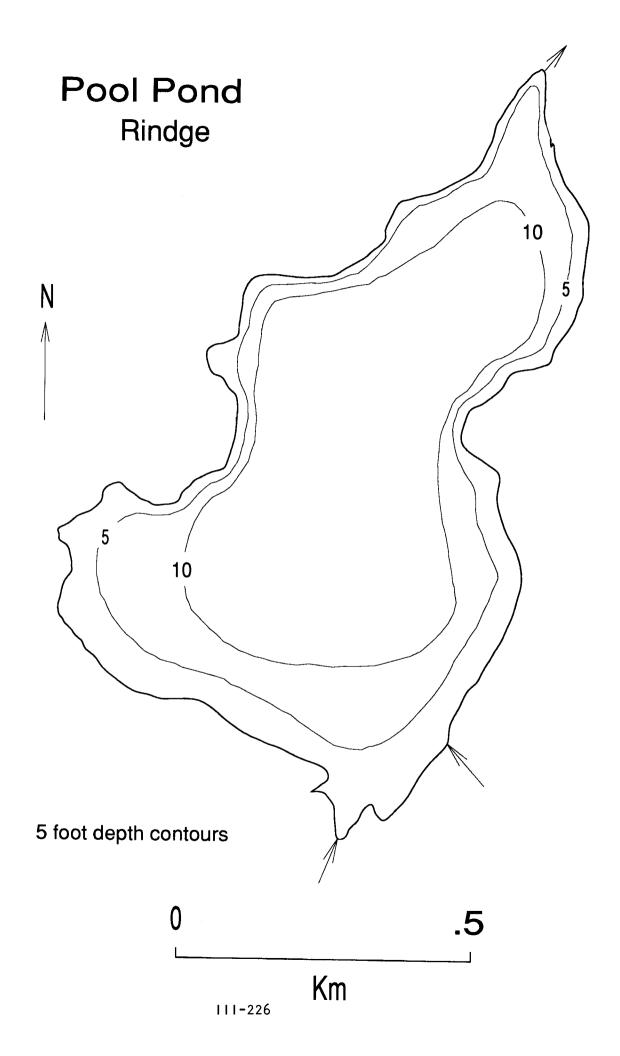
All results in mg/L unless indicated otherwise

TROPHIC CLASSIFICATION: 1992

D	.0.	S.D.	PLANT	CHL	TOTAL	CLASS
	**	3	4	0	7	Meso.

COMMENTS:

- 1. This pond was previously surveyed and classified in 1980. There was little change in water quality and no change in classification.
- 2. A sheathed filamentous blue-green species (20%) and Aphanocapsa were the dominant wholewater phytoplankton genera. Blue-greens (50%) and greens (35%) were the dominant classes.



FIELD DATA SHEET

LAKE: POOL POND

DATE: 07/13/92

TOWN: RINDGE

WEATHER: OVERCAST

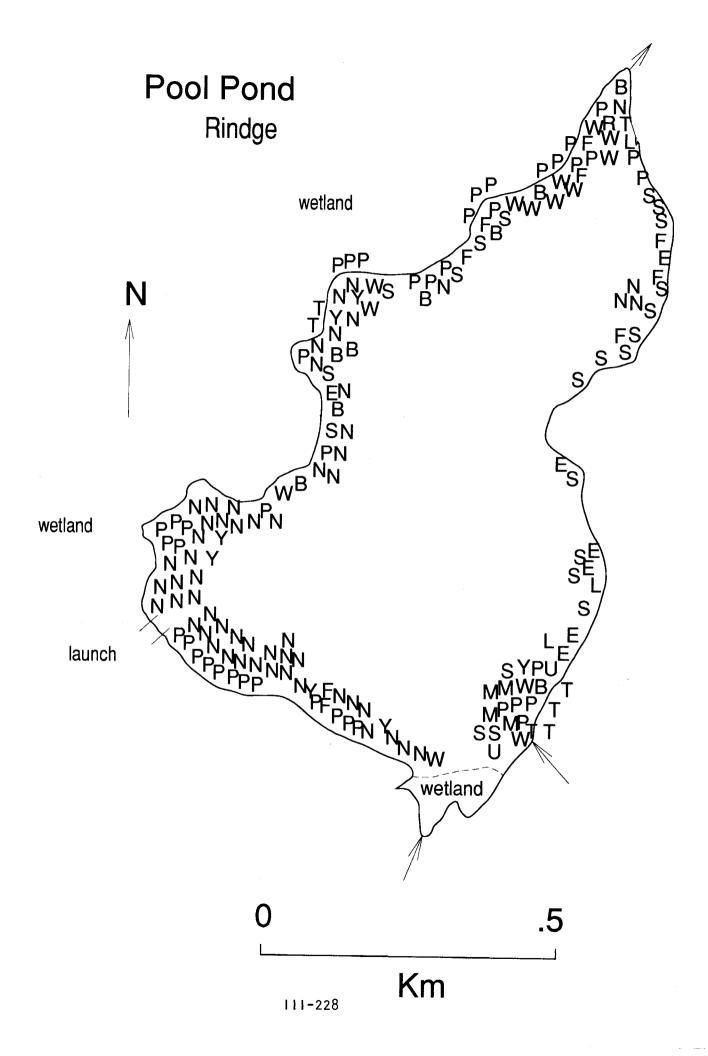
DEDENIA				
DEPTH (M)	TEMP (°C)	*DISSOLVED OXYGEN	OXYGEN SATURATION	
 0.1	23.0	8.0	93 %	
 1.0	23.0	7.9	91 %	
 2.0	23.0	7.8	90 %	
3.0	23.0	7.8	90 %	
4.0	23.0	7.7	89 %	
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1				

SECCHI DISK (m): 3.0 COMMENTS:

BOTTOM DEPTH (m): 4.1

TIME: 1210

*Dissolved oxygen values are in mg/L



AQUATIC PLANT SURVEY

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Key	PLANT	NAME	ABUNDANCE	
	GENERIC	COMMON		
N	Nymphaea	White water lily	Common	
	Nuphar	Yellow water lily	Scattered	
W	Potamogeton	Pondweed	Scattered	
S	Sparganium	Bur reed	Scattered	
P	Pontederia cordata	Pickerelweed	Scat/Common	
E	Eriocaulon septangulare	Pipewort	Sparse	
L	Lobelia dortmanna	Water lobelia	Sparse	
ប	Utricularia	Bladderwort	Abundant	
M	Proserpinaca	Mermaid weed	Sparse	
В	Brasenia schreberi	Water shield	Scat/Common	
F	Nymphoides cordatum	Floating heart	Scattered	
T	Typha	Cattail	Sparse	
R	Eleocharis	Spike rush	Sparse	
			7	

OVERALL ABUNDANCE: Common/Abun

GENERAL OBSERVATIONS:

- 1. Plants were abundant in the coves and along the shallows, but the majority of the pond was open water.
- 2. Bladderwort came up on the anchor at the deep spot; it was probably present over much of the bottom of the pond -- but is not depicted on the map; choppy water restricted the ability to view submerged plant growth.